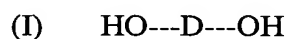


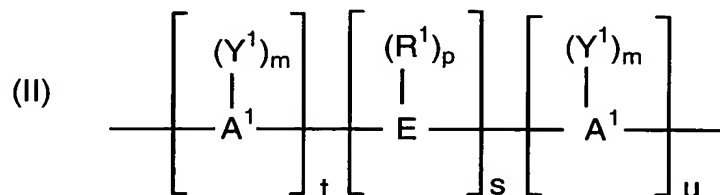
CLAIMS:

1. A multilayer article comprising (i) at least one polycarbonate layer, wherein the polycarbonate comprises structural units derived from at least one dihydroxy aromatic hydrocarbon; (ii) at least one polypropylene layer; and (iii) a tielayer between the polycarbonate layer and the polypropylene layer, wherein the tielayer comprises a copolymer with structural units derived from at least one alkenyl aromatic compound and at least one conjugated diene.

2. The multilayer article of claim 1 wherein the dihydroxy aromatic hydrocarbon comprises those represented by the formula (I):



wherein D is a divalent aromatic radical with the structure of formula (II):



wherein A^1 is selected from the group consisting of an aromatic group, phenylene, biphenylene and naphthylene;

E is selected from the group consisting of alkylene, alkylidene, methylene, ethylene, ethylidene, propylene, propylidene, isopropylidene, butylene, butylidene, isobutylidene, amylene, amylidene, isoamylidene, a cycloaliphatic group, cyclopentylidene, cyclohexylidene, 3,3,5-trimethylcyclohexylidene, methylcyclohexylidene, 2-[2.2.1]-bicycloheptylidene, neopentylidene, cyclopentadecylidene, cyclododecylidene, adamantylidene; a sulfur-containing linkage, sulfide, sulfoxide, sulfone; a phosphorus-containing linkage, phosphinyl, phosphoryl; an ether linkage; a carbonyl group; a tertiary nitrogen group; a silicon-containing linkage, silane, siloxy; and two or more alkylene or alkylidene groups connected by a moiety different from alkylene or alkylidene and selected from the group consisting of an aromatic linkage; a tertiary nitrogen linkage; an ether linkage; a

carbonyl linkage; a silicon-containing linkage, silane, siloxy; a sulfur-containing linkage, sulfide, sulfoxide, sulfone; a phosphorus-containing linkage, phosphinyl and phosphonyl;

R^1 independently at each occurrence is selected from the group consisting of a monovalent hydrocarbon group, alkenyl, allyl, alkyl, aryl, aralkyl, alkaryl, cycloalkyl, a halogen-substituted monovalent hydrocarbon group, a fluoro-substituted monovalent hydrocarbon group, a chloro-substituted monovalent hydrocarbon group, dichloroalkylidene, and gem-dichloroalkylidene,

Y^1 independently at each occurrence is selected from the group consisting of an inorganic atom, halogen, fluorine, bromine, chlorine, iodine; an inorganic group containing more than one inorganic atom, nitro; an organic group, a monovalent hydrocarbon group, alkenyl, allyl, alkyl, C_1 - C_6 alkyl, aryl, aralkyl, alkaryl, cycloalkyl, and an oxy group, OR^2 wherein R^2 is a monovalent hydrocarbon group selected from the group consisting of alkyl, aryl, aralkyl, alkaryl, cycloalkyl;

“m” represents any integer from and including zero through the number of replaceable hydrogens on A^1 available for substitution;

“p” represents an integer from and including zero through the number of replaceable hydrogens on E available for substitution;

“t” represents an integer equal to at least one;

“s” represents an integer equal to either zero or one; and

“u” represents any integer including zero.

3. The multilayer article of claim 1 wherein the dihydroxy aromatic hydrocarbon comprises bis(4-hydroxyphenyl)sulfide, bis(4-hydroxyphenyl) ether, bis(4-hydroxyphenyl)sulfone, bis(4-hydroxyphenyl)sulfoxide, 1,4-dihydroxybenzene, 4,4'-oxydiphenol, 2,2-bis(4-hydroxyphenyl)hexafluoropropane, 4,4'-(3,3,5-trimethylcyclohexylidene)diphenol; 4,4'-bis(3,5-dimethyl)diphenol, 1,1-bis(4-hydroxy-3-methylphenyl)cyclohexane; 4,4-bis(4-hydroxyphenyl)heptane; 2,4'-

dihydroxydiphenylmethane; bis(2-hydroxyphenyl)methane; bis(4-hydroxyphenyl)methane; bis(4-hydroxy-5-nitrophenyl)methane; bis(4-hydroxy-2,6-dimethyl-3-methoxyphenyl)methane; 1,1-bis(4-hydroxyphenyl)ethane; 1,2-bis(4-hydroxyphenyl)ethane; 1,1-bis(4-hydroxy-2-chlorophenyl)ethane; 2,2-bis(3-phenyl-4-hydroxyphenyl)propane; 2,2-bis(4-hydroxy-3-methylphenyl)propane; 2,2-bis(4-hydroxy-3-ethylphenyl)propane; 2,2-bis(4-hydroxy-3-isopropylphenyl)propane; 2,2-bis(4-hydroxy-3,5-dimethylphenyl)propane; 3,5,3',5'-tetrachloro-4,4'-dihydroxyphenyl)propane; bis(4-hydroxyphenyl)cyclohexylmethane; 2,2-bis(4-hydroxyphenyl)-1-phenylpropane; 2,4'-dihydroxyphenyl sulfone; dihydroxy naphthalene; 2,6-dihydroxy naphthalene; hydroquinone; resorcinol; C₁₋₃ alkyl-substituted resorcinols; methyl resorcinol, catechol, 1,4-dihydroxy-3-methylbenzene; 2,2-bis(4-hydroxyphenyl)butane; 2,2-bis(4-hydroxyphenyl)-2-methylbutane; 1,1-bis(4-hydroxyphenyl)cyclohexane; 4,4'-dihydroxydiphenyl; 2-(3-methyl-4-hydroxyphenyl)-2-(4-hydroxyphenyl)propane; 2-(3,5-dimethyl-4-hydroxyphenyl)-2-(4-hydroxyphenyl)propane; 2-(3-methyl-4-hydroxyphenyl)-2-(3,5-dimethyl-4-hydroxyphenyl)propane; bis(3,5-dimethylphenyl-4-hydroxyphenyl)methane; 1,1-bis(3,5-dimethylphenyl-4-hydroxyphenyl)ethane; 2,2-bis(3,5-dimethylphenyl-4-hydroxyphenyl)propane; 2,4-bis(3,5-dimethylphenyl-4-hydroxyphenyl)-2-methylbutane; 3,3-bis(3,5-dimethylphenyl-4-hydroxyphenyl)pentane; 1,1-bis(3,5-dimethylphenyl-4-hydroxyphenyl)cyclopentane; 1,1-bis(3,5-dimethylphenyl-4-hydroxyphenyl)cyclohexane; bis(3,5-dimethyl-4-hydroxyphenyl) sulfoxide, bis(3,5-dimethyl-4-hydroxyphenyl) sulfone, bis(3,5-dimethylphenyl-4-hydroxyphenyl)sulfide; or mixtures comprising at least one of the foregoing dihydroxy-aromatic compounds..

4. The multilayer article of claim 3 wherein the dihydroxy aromatic hydrocarbon comprises bisphenol A.

5. The multilayer article of claim 1 wherein the polycarbonate layer has a thickness in a range of about 10-2,500 microns.

6. The multilayer article of claim 1 wherein the polycarbonate layer further comprises at least one colorant selected from the group consisting of dyes, pigments, metal flakes, and glass flakes.

7. The multilayer article of claim 1 wherein the polypropylene layer comprises at least one polypropylene selected from the group consisting of homopolypropylene; random, graft, and block copolymers comprising structural units derived from propylene and further comprising up to about 30 weight percent of units derived from C₂-C₁₀ aliphatic alpha-olefins or C₂-C₁₀ aromatic alpha-olefins, polypropylenes which have been chemically modified with at least one polar functionalization agent selected from the group consisting of acrylic acid, methacrylic acid, maleic acid, maleic anhydride, itaconic acid, itaconic anhydride, fumaric acid, malic acid and monoesters of maleic acid and fumaric acid with monohydric alcohols; and a blend of at least two of these polypropylenes.

8. The multilayer article of claim 1 wherein the polypropylene layer comprises at least one polypropylene selected from the group consisting of homopolypropylene; and polypropylenes which have been chemically modified with at least one polar functionalization agent selected from the group consisting of acrylic acid and maleic anhydride.

9. The multilayer article of claim 1 wherein the polypropylene layer has a thickness in a range of about 10-2,500 microns.

10. The multilayer article of claim 1 wherein the polypropylene layer further comprises at least one colorant selected from the group consisting of dyes, pigments, metal flakes, and glass flakes.

11. The multilayer article of claim 1 wherein the tielayer copolymer comprises structural units derived from styrene and isoprene.

12. The multilayer article of claim 11 wherein the tielayer copolymer further comprises at least one polyurethane block.

13. The multilayer article of claim 11 wherein the tielayer copolymer comprises at least about 50% of the isoprene linkages as 1,2 or 3,4 linkages.

14. The multilayer article of claim 11 wherein the tielayer copolymer comprises greater than about 10% and less than about 30% units derived from styrene.

15. The multilayer article of claim 1 wherein the tielayer copolymer comprises structural units which have been hydrogenated.

16. The multilayer article of claim 1 wherein the tielayer copolymer comprises structural units derived from styrene and butadiene.

17. The multilayer article of claim 1 wherein the tielayer comprises at least one member selected from the group consisting of polystyrene-b-poly(styrene-butadiene)-b-polystyrene (S-S/B-S) block copolymers; hydrogenated polystyrene-b-poly(isoprene)-b-polystyrene (S-I-S) block copolymers; a blend of an S-S/B-S block copolymer with a polycarbonate; a blend of an S-S/B-S block copolymer with a polypropylene, a blend of an S-S/B-S block copolymer with both polycarbonate and polypropylene; a blend of a hydrogenated S-I-S block copolymer with a polycarbonate; a blend of a hydrogenated S-I-S block copolymer with a polypropylene, and a blend of a hydrogenated S-I-S block copolymer with both polycarbonate and polypropylene.

18. The multilayer article of claim 1 wherein the tielayer has a thickness in a range of about 10-250 microns.

19. The multilayer article of claim 1 wherein test parts of the multilayer article exhibits a ninety-degree peel strength of at least 600 Newtons per meter.

20. The multilayer article of claim 19 wherein test parts of the multilayer article exhibits a ninety-degree peel strength of at least 2500 Newtons per meter.

21. The multilayer article of claim 1 which is a food service container; an article for OVAD applications; an exterior or interior component for aircraft, automotive, truck, military vehicle, water-borne vehicle, scooter, or motorcycle, including panels, quarter panels, rocker panels, vertical panels, horizontal panels, trim, fenders, doors, decklids, trunklids, hoods, bonnets, roofs, bumpers, fascia, grilles, mirror housings, pillar appliques, cladding, body side moldings, wheel covers, hubcaps, door handles, spoilers, window frames, headlamp bezels, headlamps, tail lamps, tail lamp housings, tail lamp bezels, license plate enclosures, roof racks, and running boards; an enclosure, housing, panel, or part for an outdoor vehicle or device; an enclosure for an electrical or telecommunication device; an article of outdoor furniture; an aircraft component; an exterior or interior component for a boat or marine equipment, including trim, enclosures, or housings; an outboard motor housing; a depth finder housing; an exterior or interior component for a personal water-craft or jet-ski; an exterior or interior component for a pool, spa or hot-tub; a step or step covering; an exterior or interior component for a building or construction application including glazing, roofs, windows, floors, decorative window furnishings or treatments; a wall panel; a door or door covering; a counter top; an enclosure, housing, panel, or part for an automatic teller machine; an enclosure, housing, panel, or part for a lawn or garden tractor, lawn mower, or a tool, including a lawn and garden tool; window or door trim; an exterior or interior component for an article of sports equipment or a toy; an enclosure, housing, panel, or part for a snowmobile or recreational vehicle; an article of playground equipment; an article made from plastic-wood combinations; a golf course marker; a utility pit cover; a computer housing, a desk-top computer housing; a portable computer housing, a lap-top computer housing, a palm-held computer housing, a monitor housing, a printer housing; a keyboard or keyboard housing, a FAX machine housing, a copier housing, a telephone housing; a phone bezel; a mobile phone housing; a radio sender housing; a radio receiver housing; a network interface device housing; a transformer housing; an air conditioner housing; cladding or seating for public transportation; cladding or seating for trains,

subways, or buses; a meter housing; an antenna housing; cladding for satellite dishes; coated helmets or personal protective equipment; coated synthetic or natural textiles; or coated foam article.

22. A multilayer article consisting essentially of three layers: (i) a bisphenol A polycarbonate-comprising layer; (ii) a polypropylene-comprising layer; and (iii) a tielayer between the polycarbonate layer and the polypropylene layer, wherein the tielayer is either (A) a hydrogenated block copolymer comprising structural units derived from styrene and isoprene, wherein at least about 50% of the isoprene linkages are 1,2 or 3,4 linkages and wherein greater than about 10% and less than about 30% of structural units are derived from styrene; or (B) a polystyrene-b-poly(styrene-butadiene)-b-polystyrene block copolymer; and

wherein the multilayer article exhibits a ninety-degree peel strength of at least 600 Newtons per meter.

23. The multilayer article of claim 22 wherein the hydrogenated block copolymer comprising structural units derived from styrene and isoprene further comprises at least one polyurethane block.

24. The multilayer article of claim 22 which is a food service container.

25. A film pre-assembly comprising (i) at least one polycarbonate layer, wherein the polycarbonate comprises structural units derived from at least one dihydroxy aromatic hydrocarbon; and (iii) a tielayer comprising a copolymer with structural units derived from at least one alkenyl aromatic compound and at least one conjugated diene.

26. The film pre-assembly of claim 25 wherein the dihydroxy aromatic hydrocarbon comprises bisphenol A.

27. The film pre-assembly of claim 25 wherein the tielayer is either (A) a hydrogenated block copolymer comprising structural units derived from styrene and isoprene, wherein at least about 50% of the isoprene linkages are 1,2 or 3,4 linkages and wherein greater than about 10% and less than about 30% of structural units are

derived from styrene; or (B) a polystyrene-b-poly(styrene-butadiene)-b-polystyrene block copolymer.

28. The film pre-assembly of claim 27 wherein the hydrogenated block copolymer comprising structural units derived from styrene and isoprene further comprises at least one polyurethane block.

29. The film pre-assembly of claim 25 wherein thicknesses of layers are: a polycarbonate layer of about 10-2,500 microns; and a tielayer of about 10-250 microns.

30. A film pre-assembly comprising (ii) at least one polypropylene layer; and (iii) a tielayer comprising a copolymer with structural units derived from at least one alkenyl aromatic compound and at least one conjugated diene.

31. The film pre-assembly of claim 30 wherein the tielayer is either (A) a hydrogenated block copolymer comprising structural units derived from styrene and isoprene, wherein at least about 50% of the isoprene linkages are 1,2 or 3,4 linkages and wherein greater than about 10% and less than about 30% of structural units are derived from styrene; or (B) a polystyrene-b-poly(styrene-butadiene)-b-polystyrene block copolymer.

32. The film pre-assembly of claim 31 wherein the hydrogenated block copolymer comprising structural units derived from styrene and isoprene further comprises at least one polyurethane block.

33. The film pre-assembly of claim 31 wherein thicknesses of layers are: a polypropylene layer of about 10-2,500 microns; and a tielayer of about 10-250 microns.

34. A method for making a multilayer article comprising (i) at least one polycarbonate layer, wherein the polycarbonate comprises structural units derived from at least one dihydroxy aromatic hydrocarbon; (ii) at least one polypropylene layer; and (iii) a tielayer between the polycarbonate layer and the polypropylene layer,

wherein the tielayer comprises a copolymer with structural units derived from at least one alkenyl aromatic compound and at least one conjugated diene;

which method comprises the steps of (a) preparing a pre-assembly of polycarbonate layer and tielayer, and (b) forming said article with the tielayer side of the pre-assembly adjacent to the polypropylene layer.

35. The method of claim 34 wherein the dihydroxy aromatic hydrocarbon comprises bisphenol A.

36. The method of claim 34 wherein the tielayer is either (A) a hydrogenated block copolymer comprising structural units derived from styrene and isoprene, wherein at least about 50% of the isoprene linkages are 1,2 or 3,4 linkages and wherein greater than about 10% and less than about 30% of structural units are derived from styrene; or (B) a polystyrene-b-poly(styrene-butadiene)-b-polystyrene block copolymer.

37. The method of claim 36 wherein the hydrogenated block copolymer comprising structural units derived from styrene and isoprene further comprises at least one polyurethane block.

38. The method of claim 34 wherein the pre-assembly of polycarbonate layer and tielayer is formed by coextrusion.

39. The method of claim 34 wherein step (b) is performed by coextrusion or lamination.

40. A method for making a multilayer article comprising (i) at least one polycarbonate layer, wherein the polycarbonate comprises structural units derived from at least one dihydroxy aromatic hydrocarbon; (ii) at least one polypropylene layer; and (iii) a tielayer between the polycarbonate layer and the polypropylene layer, wherein the tielayer comprises a copolymer with structural units derived from at least one alkenyl aromatic compound and at least one conjugated diene;

which method comprises the steps of (a) preparing a pre-assembly of polypropylene layer and tielayer, and (b) forming said article with the tielayer side of the pre-assembly adjacent to the polycarbonate layer.

41. The method of claim 40 wherein the dihydroxy aromatic hydrocarbon comprises bisphenol A.

42. The method of claim 40 wherein the tielayer is either (A) a hydrogenated block copolymer comprising structural units derived from styrene and isoprene, wherein at least about 50% of the isoprene linkages are 1,2 or 3,4 linkages and wherein greater than about 10% and less than about 30% of structural units are derived from styrene; or (B) a polystyrene-b-poly(styrene-butadiene)-b-polystyrene block copolymer.

43. The method of claim 42 wherein the hydrogenated block copolymer comprising structural units derived from styrene and isoprene further comprises at least one polyurethane block.

44. The method of claim 40 wherein the pre-assembly of polypropylene layer and tielayer is formed by coextrusion.

45. The method of claim 40 wherein step (b) is performed by coextrusion or lamination.

46. A method for making a multilayer article consisting essentially of three layers (i) at least one polycarbonate layer, wherein the polycarbonate comprises structural units derived from at least one dihydroxy aromatic hydrocarbon; (ii) at least one polypropylene layer; and (iii) a tielayer between the polycarbonate layer and the

polypropylene layer, wherein the tielayer comprises a copolymer with structural units derived from at least one alkenyl aromatic compound and at least one conjugated diene;

which method comprises the step of forming the article by coextrusion, lamination or extrusion coating lamination.

47. The method of claim 46 wherein the dihydroxy aromatic hydrocarbon comprises bisphenol A.

48. The method of claim 46 wherein the tielayer is either (A) a hydrogenated block copolymer comprising structural units derived from styrene and isoprene, wherein at least about 50% of the isoprene linkages are 1,2 or 3,4 linkages and wherein greater than about 10% and less than about 30% of structural units are derived from styrene; or (B) a polystyrene-b-poly(styrene-butadiene)-b-polystyrene block copolymer.

49. The method of claim 48 wherein the hydrogenated block copolymer comprising structural units derived from styrene and isoprene further comprises at least one polyurethane block.